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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/692,716 | 10/27/2003 | Kouta Yasunaga | 61282-042 | 9704 |

7590 10/17/2005
McDERMOTT, WILL & EMERY
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Washington, DC 20005-3096

EXAMINER

VO, THANH DUC

ART UNIT PAPER NUMBER

2189

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/692,716 | Applicant(s) YASUNAGA, KOUTA | |
| | Examiner Thanh D. Vo | Art Unit 2189 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/27/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Office Action is responsive to the Application filed on October 27, 2003. The applicant is entitled to Foreign Priority Date of November 19, 2002. Claims 1-5 are presented for examination.

Claims 1-5 are pending.

The IDS filed October 27, 2003 has been considered.

Claim Objections

2. Claim 1 is objected to because of the following informalities: The phrase "a plurality of **master interfaces**...connected to the **master interfaces**" is indefinite. Appropriate correction is required.

3. Examiner hereby found the limitation "arbiter" in claim 3 to be indefinite in respect to claim 2. Therefore, claim 3 is objected. Examiner treats claim 3 as dependent claim under claim 1 for the merits of examination.

4. Claims 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 3. See MPEP § 608.01(n).

5. Claims 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 3 and 4. See MPEP § 608.01(n).

Accordingly, the claims 4 and 5 not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1 recites the limitation "read buffers" and "write buffers" in the phrase "a shared memory interface... from said **write buffers**... to...to said **read buffers**... from said FIFO". There is insufficient antecedent basis for the limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sharma et al. (US 6,108,737).

As per claim 1, Sharma et al. disclosed a shared memory data transfer apparatus (see Fig. 1), where a plurality of masters (see Fig. 1, items 102-108, col. 5, lines 48-50) access one shared memory (see Fig. 1, item 150, col. 5, lines 50-55) to perform data transfers, the disclosed shared memory apparatus comprising:

a plurality of master interfaces (see Fig. 2, items 202-208, col. 7, lines 44-46) respectively connected to the masters **102-108**.

write buffers (see Fig. 2, items 222-230, col. 7, lines 50-51) connected to the master interfaces **202-208** for retaining data written from said masters **102-108** to said shared memory **150**,

read buffers (see Fig. 2, items 212-220, col. 7, lines 49-50) connected to the master interfaces **202-208** for retaining data read from said shared memory **150** to said masters **102-108**.

a FIFO (see Fig. 5, items 522-536, col. 11, lines 13-15, and 41-45) provided between said master interfaces **202-208** and said shared memory **150** for storing commands from the master directed to the shared memory in a first-in, first-out fashion, and

a shared memory interface (see Fig. 1, item 170, col. 6, lines 59-62) for controlling data transfers from the write buffers **222-230** to said shared memory or data transfers from the shared memory **150** to the read buffers **212-220** in accordance with commands fetched from the FIFO **522-536** (col. 7, lines 60-67; col. 8, lines 1-8; and col. 11, lines 8-25)

As per claim 2, Sharma et al. disclosed a shared memory data transfer apparatus (Fig. 1) further comprising an arbiter (see Fig. 2, item 240) for storing a plurality of simultaneously issued commands into the FIFO **522-536** in a predetermined order (col. 7, lines 53-67)

As per claim 3, Sharma et al. disclosed a shared memory apparatus (Fig. 1) further comprising an arbiter (see Fig. 2, item 240) for referencing the command contents and rearranging the order of commands to be stored into the FIFO **522-536** (col. 7, lines 53-67).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh D. Vo whose telephone number is (571) 272-0708. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/06/2005



Thanh Vo

Patent Examiner



TUAN V. THAI
PRIMARY EXAMINER